Amendments to the Claims:

This listing of claims will replace all prior versions, and listing, of claims in the application.

Listing of Claims:

1. (Currently Amended) An optical pointing system comprising:

an image sensor for detecting light reflected from a worktable surface to generate an image signal;

a maximum search window ~~variable~~ calculation circuit for inputting at least one of the image signal to detect a quantity of light and a movement value to detect ~~a quantity of light and~~ a movement speed, and adjusting a size of the maximum search window and a size of a mask window according to the quantity of light and the movement speed;

a sampling rate variable circuit for inputting at least one of the image signal and the movement value to generate a sampling rate control signal for changing a sampling rate; and

a sensor circuit having a movement value calculation circuit for calculating the movement value of the image signal using the changed maximum search window in size.

2. (Cancelled)

3. (Currently Amended) The optical pointing system of claim ~~2~~1, wherein the sampling rate variable circuit comprises:

a light quantity detector for inputting the image signal inputted from the image sensor to detect the quantity of light;

a movement speed detector for inputting the movement value inputted from the movement value calculation circuit to detect a movement speed; and

a sampling rate calculation circuit for calculating the sampling rate according to at least one of the detected quantity of light and movement value to generate the sampling rate control signal.

4. (Currently Amended) The optical pointing system of claim 2̶1, wherein the sensor circuit further comprises an A/D converter circuit for converting an analog signal outputted from the image sensor into a digital signal and outputting the digital signal to the maximum search window variable circuit and the movement value calculation circuit.

5. (Original) The optical pointing system of claim 3, wherein the sensor circuit further comprises an interface circuit for storing the movement value outputted from the movement value calculation circuit at the sampling rate changed in response to the sampling rate control signal and transmitting the movement value to a computer at a predetermined report rate.

6. (Currently Amended) The optical pointing system of claim 2̶1, wherein the maximum search window variable circuit calculates the maximum search window at the sampling rate changed in response to the sampling rate control signal.

7. (Currently Amended) The optical pointing system of claim 2̶1, wherein the movement value calculation circuit calculates the movement value at the sampling rate changed in response to the sampling rate control signal.

8. – 9. (Cancelled)

10. (Original) The optical pointing system of claim 3, wherein the sensor circuit further comprises a clock control circuit, including:

a dividing circuit for dividing a reference clock signal to generate a predetermined number of clock signals having different frequencies from each other; and

a selection circuit for selecting one clock signal among the clock signals in response to the sampling rate control signal,

wherein the sampling rate is changed in response to one clock signal outputted from the selection circuit.

11. (Original) The optical pointing system of claim 3, wherein the sensor circuit further comprises a phased locked loop for generating a clock signal for changing the sampling rate in response to the sampling rate control signal.

12. (Currently Amended) An optical pointing system comprising:

an image sensor for detecting light reflected from a worktable surface to generate an image signal;

a sampling rate and maximum search window variable circuit for inputting at least one of the image signal to detect a quantity of light and a movement value to detect the quantity of light and thea movement speed and to generate a sampling rate control signal for changing a sampling rate, and adjusting a size of the maximum search window and a size of a mask window according to the quantity of light and the movement speed; and

a sensor circuit having a movement value calculation circuit for responding to the sampling rate control signal and calculating the movement value of the image signal using the changed maximum search window.

13. (Currently Amended) The optical pointing system of claim 12, wherein the sampling rate and maximum search window variable circuit comprises:

a light quantity detector for inputting the image signal inputted from the image sensor to detect a the quantity of light;

a movement speed detector for inputting the movement value inputted from the movement value calculation circuit to detect a the movement speed;

a sampling rate variable circuit for generating the sampling rate control signal for changing the sampling rate in response to at least one of the detected quantity of light and movement speed; and

a maximum search window calculation circuit for calculating and outputting the maximum search window in response either to at least one of the detected quantity of light and movement speed, or to the sampling rate control signal.

14. (Original) The optical pointing system of claim 12, wherein the sensor circuit further comprises an A/D converter circuit for converting an analog signal outputted from the image sensor into a digital signal and outputting the digital signal to the maximum search window variable circuit and the movement value calculation circuit.

15. (Original) The optical pointing system of claim 12, wherein the sensor circuit further comprises an interface circuit for storing the movement value outputted from the movement value calculation circuit at the sampling rate changed in response to the sampling rate control signal, and transmitting the movement value at a predetermined report rate.

16. (Previously Presented) A method for controlling a sampling rate and a maximum search window of an optical pointing system, the method comprising the steps of:

detecting light reflected from a worktable surface to generate an image signal;

detecting a quantity of light for inputting the image signal inputted from an image sensor to detect the quantity of light;

detecting a movement speed for inputting a movement value to detect a movement speed;

generating a sampling rate control signal for generating the sampling rate control signal for changing the sampling rate in response to the detected quantity of light and the movement speed;

calculating the maximum search window for calculating and outputting the size of the maximum search window in response to any one of the detected quantity of light and the movement speed, and the sampling rate control signal;

calculating the movement value for responding to the sampling rate control signal and calculating the movement value of the image signal using the changed maximum search window; and

calculating a mask window for calculating and outputting a size of the mask window in response to any one of the detected quantity of light and movement speed, and the sampling rate control signal.

17. – 18. (Cancelled)